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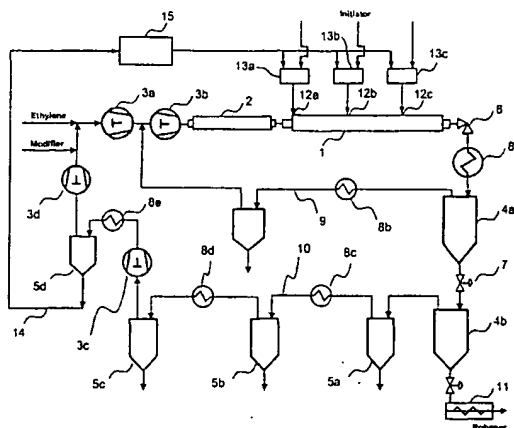
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[Continued on next page]

(54) Title: CONTINUOUS PREPARATION OF ETHYLENE HOMOPOLYMERS OR COPOLYMERS



(57) Abstract: The invention relates to a process for the continuous preparation of ethylene homopolymers or copolymers in the presence of free-radical polymerization initiators and, if desired, molecular weight regulators at from 120°C to 350°C and pressures in the range from 100 to 4000 bar, in which the polymer is separated from unpolymerized ethylene in a high-pressure stage at a pressure of from 100 to 500 bar and at least one low-pressure stage at a pressure of from 1 to 100 bar and the ethylene separated off in the high-pressure stage is separated from remaining monomeric, oligomeric and/or polymeric constituents and recirculated to the inlet of the tube reactor in a high-pressure circuit and the ethylene separated off in the low-pressure stage is separated from remaining monomeric, oligomeric and/or polymeric constituents and recirculated to the inlet of the tube reactor in a low-pressure circuit. The initiator is used as a solution in an isoparaffinic solvent having a boiling point of not more than 160°C and the solvent is separated from the other monomeric, oligomeric and/or polymeric constituents in the low-pressure circuit. The solvent is then, if appropriate after being admixed with fresh solvent, reused for dissolving initiator.



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